

## REMARKS

Claims 12-33 are pending in the subject application.

Applicants have amended the specification to correct errors and informalities in accordance with the U.S. practice. Applicants have also amended claims 12, 14, and 23. Support for the amendments is self-explanatory; support for the claims 12 and 14 will be discussed, *infra*. Support for the amendment to definitions of R5 in claims 14 and 23 can be found at page 4, lines 37-44 and page 6, lines 43-38, in the specification as filed or paragraphs [0040] and [0080] in the published application. No new matter has been introduced.

On January 17, 2007, Applicants' attorneys had a personal interview with Examiner Lu in the USPTO. Applicants express their appreciation for the opportunity and courtesy that the Examiner extended to their representatives. Comments and discussion during the interview are reflected in the following remarks.

Applicants request favorable reconsideration of the subject application in view of the following remarks.

### *Specification*

The Examiner's Office Action objected to the specification because of the informalities. In response, Applicants have corrected numberings, errors, and informalities in the specification. Accordingly, the objection has been overcome.

### *Claim Rejections – 35 USC §112*

The Examiner's Office Action rejected claims 12-33 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Regarding the definition of "G" in claims 12 and 14, Applicants would like to draw the attention to page 3, lines 20-35, page 4, lines 21-43, and page 6, lines 1-15 and 30-48, (or paragraphs [0013], [0014], and [0065] in the published application), in the specification as originally filed. The formulae IA-4, IB-4, IIA-4, and IIB-4 and the definitions for the formulae in the specification support the definition of G as the phenylene bridge. Moreover, the examples and ligands having formulae  $L_1$ - $L_6$ ,  $L_8$ - $L_{36}$  in the specification as originally filed all support the definition of G in claims 12 and 14 as amended.

Regarding the definition of "D" as "NR<sup>5</sup>" in claim 14, Applicants would like to draw the attention to page 3, lines 27-35, and page 6, lines 7-15, in the specification as originally filed (or paragraphs [0014] and [0065] in the published application). Both formulae IB-4 and IIB-4 show D as a NR<sup>5</sup> group, and the definitions following the formulae in the specification, page 4, lines 37-44 and page 6, lines 43-48, in the specification as filed or paragraphs [0040] and [0080] in the published application, support the definition of D as NR<sup>5</sup> as amended.

Regarding the "→" bond between D and B, Applicants would like to draw the attention to page 4, line 26, page 5, line 32, and page 6, line 35, in the specification as originally filed (or paragraphs [0035], [0061], and [0077] in the published application), in which Applicants repeatedly and consistently define the "→" bond as single or double bond. The Court has established that Applicants can act as their own lexicographer, and thus in this case, the explicit definition of the "→" bond by the Applicants in the

specification should control and provide support for claims 12 and 14 as well as antecedent basis for claims 20-22 and 24-27 therefrom.

In view of the foregoing, Applicants believe that the rejection has been overcome.

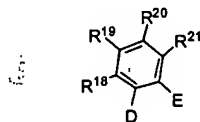
### *Claim Rejections – 35 USC §102*

The Examiner's Office Action rejected claims 12-14, 16-23, and 28-33 under 35 U.S.C. §102(b) as being anticipated by Ittel et al., U.S. Patent No. 6,531,424 (the Ittel reference).

The Court has established that to anticipate a claim, each and every element of the claim must be found in a single prior art reference, either expressly or inherently.

Applicants submit that the Ittel reference does not disclose, either expressly or inherently, the present invention as set forth in claims 12-14, 16-23, and 28-33, as amended.

The Ittel reference does not disclose, either expressly or inherently, that the structure of the metal complex as set forth in claims 12, 14, and 23. Particularly, the Ittel reference does not disclose G as being a chemically inert substituted or unsubstituted phenylene group bridging D and E through



while  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$  each independently represents a hydrogen, halogen, or a chemically inert substituted or unsubstituted hydrocarbyl moiety. In the structure of complex XVII in the Ittel reference, E, as being a nitrogen, fuses with the adjacent

aromatic structure (as denoted by the Examiner's action as G) to form a quinoline-like structure.

The structure from the Ittel reference does not disclose, either expressly or inherently, the structure as set forth in the present invention in which G does not form an aromatic structure with E. Each of the  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$  independently represents a hydrogen, halogen, or a chemically inert substituted or unsubstituted hydrocarbyl moiety. The Ittel reference does not disclose, either expressly or inherently, when these groups are hydrogen or halogen.

Moreover, the Ittel reference does not disclose, either expressly or inherently, when these groups are hydrocarbyl groups. Hydrocarbyl group is defined as a "univalent group(s) formed by removing a hydrogen atom from a hydrocarbon, e.g., ethyl, phenyl." See IUPAC Compendium of Chemical Terminology, 2nd Edition (1997) (attached herewith). The quinoline-like structure in Ittel as formed by fused "E" and "D" does not disclose, either expressly or inherently, the E and G of the present invention with G being the phenylene bridge having univalent groups of  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$  attached thereto. The present invention as set forth in claims 12, 14, and 23 does not encompass an aromatic structure formed between the adjacent group  $R^{21}$  and E while  $R^{21}$  being a hydrocarbyl. Accordingly, the structure as shown in the Ittel reference does not disclose the structure as set forth in claims 12, 14, and 23. Since claims 12, 14, and 23 are not anticipated by the Ittel reference, neither do claims 13, 16-22, and 28-33 which depend on claim 12, either directly or indirectly.

Therefore, Applicants believe that claims 12-14, 16-23, and 28-33, as amended, are not anticipated by the Ittel reference, and the rejection has been overcome.

***Allowable Subject Matter***

The Examiner's action indicated that claim 15 and 24-27 would be allowable if the rejection under 35 U.S.C. §112, first paragraph.

In view of the foregoing amendments and remarks, Applicants believe that all objections and rejections have been overcome and claims 12-33, as amended, are all in condition for allowance, early notice of which is requested.

Please charge any required fees in connection with this filing to Deposit Account No. 50-2586 and notify Applicants' attorney accordingly. A Fee Transmittal Sheet accompanies this response.

Respectfully submitted,

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**hydrocarbyl groups**

Univalent groups formed by removing a hydrogen atom from a *hydrocarbon*, e.g. ethyl, phenyl.

See *heterocyclyl*, *organoheteryl*, *organyl* groups.

1995, 67, 1341